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AUTHOR Briggs, Dianna; And Others
INSTITUTION University of Northern Iowa, Cedar Falls. School of Business.
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ABSTRACT

This unit of instruction provides the teacher with assistance when teaching database use on the computer in secondary and postsecondary business education classes. Section I is the introduction addressed to the teacher. It provides instruction on how to proceed with the unit, types of software available, and where to use this material within the business curriculum. Section II, the introduction of a database to the student, provides a suggestion for getting started. This initial instruction includes lecture, discussion, and explanation of terms to the students. Some exercises are provided to help students visually understand what a database program will do. Examples are provided for a learning activity (creating a membership list) for four software programs: Appleworks, Data Handler, dBase III, and PFS: File. The activities for use in the classroom are designed to provide the teacher with two applications for the use of a database. These two activities provide instructional objectives, information for creating and using a database, and information for printing useful reports. Information is provided to help students develop additional activities with the software program. An appendix contains explanations of terminology, sample printed reports from the learning activity, and a list of references. (YLB)

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COMPUTER APPLICATIONS

Data Base

Developed by

Dianna Briggs, Chair
Price Laboratory School--Cedar Falls

Brent Black
Kennedy Senior High--Cedar Rapids

John Kidney
Webster City High School

Robert Schmadeke
Grundy Center High School

Jean Yearous
Mt. Ayr High School

Under the direction of

Dr. Jack C. Reed
Information Management Department
School of Business
University of Northern Iowa
Cedar Falls, IA 50614

1986

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INTRODUCTION

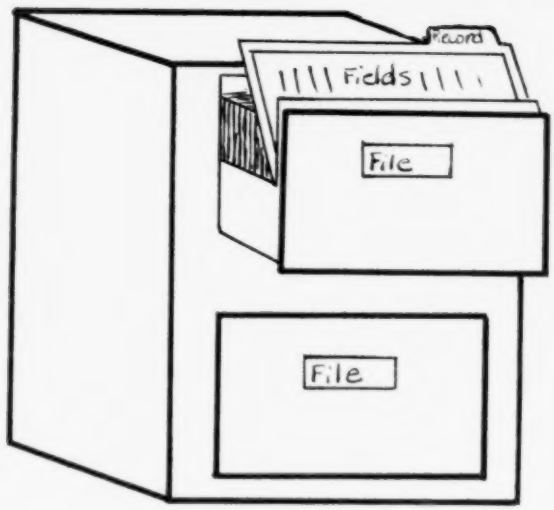
Living in an information era, we must learn to adapt to and grow with the challenges that face us each day. Some of these challenges have been brought about with the increased use of computers in business schools as well as in homes. The invention of the microcomputer, often referred to as a personal computer, has made available a computer for many of our students. Students need to learn how to organize information so that they can search, edit, add, delete, and sort data. This could be a student who wants to organize baseball cards. The cards could be grouped alphabetically by the players' last names or grouped in order of batting averages or positions played. Or, a student could organize statistics for a class research project. Whatever the need, this collecting, sorting, saving, and retrieving of information can be provided through the use of a data base management system.

The objective of this unit of instruction is to provide the teacher with assistance when teaching data base use on the computer. It is designed to provide information which is an inservice for the teacher, walk-through activities which the teacher can use with students, and suggested activities for the teacher to develop as needed.

EXPLANATION

In its simplest form, data base management is a means for storing, arranging, and retrieving data. Each software program provides numerous secondary functions which can provide a variety of additional activities. These functions provided by a data base program are the same functions which would be performed when using a traditional filing system. The advantage of the data base program is that a user can continually update the system, rearrange information, purge files, and produce numerous usable reports in only a fraction of the time and with minimal effort.

At this point, it is necessary for the user to understand three critical terms: field, record, and file. A field is an item or one unit of data, such as an individual's last name. A group of fields make up a record. An example of a record could include the fields: first name, last name, address, city, state, zip, and phone number. A file, then, consists of a group of records. This can best be understood by thinking of a file drawer in an office. On the front of the file drawer would be a name or listing of what is included within that drawer. Inside the file drawer are several folders which contain information; each folder would be a record. Inside the folder (record) are pieces of information which would be the fields.



Any individual who collects information could use a data base program. It can be used to organize lists of names, statistical information, or any type of factual information.

DESIGN OF THE UNIT

The following curriculum material is designed to be used across the business education curriculum in both secondary and post-secondary classrooms. This unit is divided into four main parts: Information to the Teacher, Introduction of a Data Base to the Student, and Activities for Classroom Use. Information for developing additional activities is also provided. There are suggestions located throughout the unit that will help the teacher to avoid problems as they progress through the unit.

The information to the teacher provides instructions on how to proceed with this unit, types of software available, and where to use this material within the business curriculum. Some terminology is explained in the Introduction to the Teacher; however, a list of terms with definitions is located in the Appendix.

The Introduction of a Data Base to the Student provides a suggestion for getting started. There are some things that the teacher must know and do prior to this time. (See the section titled Teacher Preparation.) This initial introduction in the classroom will include lecture, discussion, and explanation of terms to the students. Some exercises have been provided to help the students visually understand what a data base program will do. Once they have seen the manual sorting/arranging of material, they progress to a simple walk-through of entering data into a program and doing simple arranging of the data. The student should see the correlation between sorting data manually and sorting data by computer-assisted sorting.

It would be impossible to provide tutorials for every software program. Examples have been provided for Learning Activity: Membership List for four software programs. The programs demonstrated include: Appleworks, Data Handler, dBase III, and PFS: File. Teachers will need to refer to the tutorial specific to their software prior to beginning the data base unit.

The activities for use in the classroom are designed to provide the teacher with two applications for the use of a data base. These two activities provide instructional objectives, information for creating and using a data base, and printing useful reports. Within each of these areas, there are certain tasks which the student must perform/learn. These tasks are presented in order from simple to more challenging.

Suggestions are included for other activities. Teachers can select from these suggested activities to provide students information to create additional data base files.

PLACEMENT SUGGESTIONS IN CURRICULUM

This curriculum unit has been developed for secondary and post-secondary business classes. It is not designed to be a semester course but as a unit within a course.

The following chart is a partial listing of suggested topics for developing activities for use in the business education curriculum areas.

ACTIVITY	ACCOUNTING	OFFICE	BASIC BUSINESS	MARKETING
Membership list	X	X	X	X
Employee list	X	X	X	X
Payroll	X	X	X	X
Inventory list	X	X	X	X
Expense report	X	X	X	X
Court summary	X	X	X	X
Sales records	X	X		X
Service record		X		X
Insurance files		X	X	X
Appointment book		X	X	X
Shorthand results		X		
Contact list		X		X
Check register	X	X	X	X
Medical information	X	X	X	X
Real estate listing		X	X	X
Accounts payable	X	X	X	
Accounts receivable	X	X		
Airline reservation	X	X		X
Salesperson's report	X	X	X	X

AVAILABLE SOFTWARE PROGRAMS

The following is a partial list of data base software programs which are available.

Appleworks
Bankstreet Filer
Condor Series 20
Data Manager 2
DB MASTER
dBase II and III
FMS
Filing Assistance
Fleet
Framework
Incredible Jack
List Handler
MECC Computing Tools: Applications
MECC Computing Tools: Data base
MECC Create-A-Base
MECC Data handler
MECC Data handler in the classroom
MECC Dataquest: The presidents
MECC Labels, letters, & lists
Notebook Filer
PC File
PC File 3
Peachtree
PFS FILE & REPORT
Profile Plus 3
Profile Plus 4
Quickfile
Rbase 5000
Secret Filer
Superbase 64
Syn File
TIM IV
The Consultant
The Manager
Visi File

TEACHER PREPARATION

It is very important that the teacher be familiar with the software program and the hardware requirements. You do not necessarily need to be an expert with its use, but you should be aware of the commands to operate the program. This can usually be done by working through the tutorial provided with the software.

Before introducing the Learning Activity, secure a sufficient number of program and data disks for student use. The data disks may need to be initialized prior to classroom instruction. Also, reproduce the necessary learning activity sheets for each student.

When selecting software for classroom use, be sure that it is compatible with your hardware. For example, PFS:File can be used with a single disk drive, but Data Handler requires two disk drives. The software programs vary considerably in their capabilities, ease of learning, and adaptability to the classroom. The program should be practical and provide the student with skills which will transfer to business applications.

USE OF A TUTORIAL OF SPECIFIC DATA BASE SOFTWARE

Tutorials are generally provided with purchased software. These may include:

1. Demonstration disk
2. Self-instruction/tutorial disk
3. User's manual
4. Published textbook software

Teachers will need to refer to the tutorial specific to their software prior to beginning the data base unit to be familiar with the various commands and capabilities of the program. Suggested uses of tutorial material can include having the students proceed through the software tutorial, or having the students proceed through the Learning Activity: Membership List. This activity has been written in a step-by-step presentation for four software programs--Appleworks, Data Handler, dBase III, and PFS:File. This could be used as a tutorial for these software programs.

The step-by-step presentations for the software programs were written with the assistance of:

Learning to Use Supercalc 3, dBase III, and Wordstar 3.3, An Introduction. Gary Shelly and Thomas Cashman.

MECC Computer Tools: Appleworks, Training materials for the Apple II computer. Minnesota Educational Computer Consortium, 1985.

MECC Data Handler, User's Manual. Minnesota Educational Computer Consortium, 1983.

PFS:File, User's Manual. John Page and D. D. Roberts, Program; Rose Mack, Manual.

II. Introduction of Data Base to Student

Class Presentation of Data Base

Explanation of a data base (See explanation from Introduction to Teacher, page 2.)

Explanation of terminology

view	search/find
edit/update	sort/arrange
add	field
delete	record
file	

Exercise 1

Hand out 5-10 index cards to each student

Have them write on the field names:

First Name:
Last Name:
Address:
City:
State:
Zip Code:
Phone:

Suggested activities for the students using the cards:

...Have the students complete a card by filling in the student's own information.

...Provide the students with additional names, addresses, and phone numbers for the remaining cards. This information could be written on the chalkboard or given to the students in a handout. One card should contain only the field names and no specific information. The additional names should be given in random (not alphabetical) order. The additional names should have addresses from two different cities.

...With the cards in random order, have the students search for a record using a specific street name.

...Edit this record by changing the street name.

...Search the records for a specific person. Delete this record from the file by removing this card from the other cards.

...Using the empty card, add a new record by providing a specific name, address, and phone.

...Ask the students to sort/arrange the cards in alphabetical order by last name.

...Have the students sort/arrange the cards in numerical order by phone number

...Have the students then sort/arrange the cards in alphabetical order by city into two groups.

...Search for those living in one of the cities and sort those records alphabetically by last name.

Explain the amount of work involved in writing out a listing of information for each activity to obtain a useful report.

Exercise 2

...Have the students stand up and alphabetize themselves in a line.

...Have them separate into two groups--males on one side of the room, females on the other. Remain in alphabetical order.

...As one group, have the students arrange themselves according to their class level--freshmen, sophomores, juniors, seniors, undergraduates, graduates.)

...Other possible divisions could include:
Birthdates (January-June/July-December)
Hair color
Eye color
Age
Males--alphabetized
Females--alphabetized

...Have the class re-alphabetize themselves.

Explain how computers can do these activities in less time than manually searching and sorting. Again, emphasize the importance of the computer generating useful reports.

Exercise 3

As a group activity, the instructor can then help the students set up a data base on the computer using the information from the index cards from Exercise 1. The instructor will need to be familiar with the set up and use of the data base software program. The instructor will need to explain to the students how to transfer the information from the index cards into the computer software program.

Exercise 4

As a comprehensive exercise, use a tutorial to provide additional instruction to help the student understand the software program.

In completing the following activity, you will be learning the following processes of your data base program:

- Setting up a data base
- Entering data
- Saving data
- Viewing, Editing, Adding, and Deleting data
- Printing reports without sorting
- Setting up reports
- Printing reports with sorting

You are the Chairperson of a membership committee. You will need information from each of the members which you could include on several reports in the given assignment.

The following information is needed in planning your membership file:

- Last Name
- First Name
- Address
- City
- State
- Zip
- Phone Number

The membership list includes the following information:

Charlie Hustle
123 Run Avenue
Trotter City, IA 50473
724-669-8103

Sam Dunk
688 Court Road
Garden, IA 52375
322-294-9100

Candy Bahr
4839 Main Street
Trotter City, IA 50473
724-669-2389

Sue Bee
4933 Honey Lane
Trotter City, IA 50473
724-669-9899

U. R. Stuck
Rural Route 3, P. O. Box 284
Trotter City, IA 50473
724-669-6426

Jane Doe
1548 South Elm
Garden, IA 52375
322-294-8666

Mark Wagoner
2524 Harbinger Lane
Garden, IA 52375
322-294-3479

Bryce D. Barrymore
78 English Court
Garden, IA 52375
322-294-4209

I. M. Faast
8815 North Road
Garden, IA 52375
322-294-1120

Ellissa Stevens
4744 F Avenue NE
Trotter City, IA 50473
724-669-0175

ACTIVITIES:

A. Planning and setting up a data base

B. Entering data by key-entering data from membership list above

C. Saving data

D. View, edit, add, and delete data

1. View a record - Search for Candy Bahr's phone number

2. Edit a record - Jane Doe's address has changed to "6493 Prospect Street"

3. Add a record - Bob Martin has joined our organization. His information is: 1999 99th Street, Garden, IA 52375 322-294-1000

4. Delete a record - I. M. Faast moved away. Delete this record from the file

E. Printing a useful report

1. Setting up the report format
2. Printing reports/labels

a. Membership list in order as it appeared in the file
b. Membership list alphabetized by last name
c. Membership list with first and alphabetized last names only
d. Membership list with last names in alphabetical order, first names, and phone numbers
e. Membership list with only those members in Trotter City
f. Mailing labels for members

LEARNING ACTIVITY: MEMBERSHIP LIST

==========
TEACHER NOTES
==========

.....You must have a minimum of 64k with your APPLE //e computer.
.....This activity could be used with either a single or double disk drive APPLE //e.
.....Before starting this activity, be sure your computer and printer are set up for your Appleworks program.
.....Each student needs an Appleworks program and a data disk.
.....Prepare copies of the Appleworks Quick Reference Card for Data Base for each student.
.....When the words "Select Option" appears in this guide, press the number of the option and press Return, or use the arrow keys Up or Down to select the option.
.....Prepare copies of the Activities Handout for each student.
.....Formatting student data disks.

1. Start-up Appleworks to Main Menu.
2. Select Option 5 "Other Activities."
3. Select Option 5 "Format a Blank Disk."
4. Type the word "List" and press Return.
5. Be certain the Disk to be formatted is in the disk drive designated on the top left corner of the screen.
6. Press space bar.
7. Press ESC until you reach the Main Menu.

.....Apple-(Key): means hold down the Open-Apple Key while pressing the key indicated.
.....You may Quit at any point in this Activity provided you have Saved the data to the data disk. (Always ESC to the Main Menu and select Option 6, "Quit")

**NOTE: The data for this step-by-step guide is obtained from the student Learning Activity Handout: Membership List.

==========
STUDENT ACTIVITY
==========

Planning a Data Base

From the information you have gathered, you wish to create a Data Base filing system. This Activity will utilize seven Categories (Fields) for possible useful reports using Appleworks.

Setting Up A Data Base

1. Insert the start-up Disk and the Program Disk to Load the Appleworks into the computer.
2. Select Option 1 from the Main Menu, "Add Files to the Desktop." Press Return.
3. From the Add Files Menu, select Option 4 "Data Base". Press Return.
4. From the Data Base Menu, select Option 1 "From Scratch." Press Return.
5. Type "Membership List" for your data base file name and press Return.
6. The CHANGE NAME/CATEGORY screen should be displayed and press Apple-Y to delete the word, Category 1, from the screen.
7. Key-enter the names of the Categories and press Return after each category name.
8. After completion of the categories, press the ESC key and then the Space Bar to enter the data.

Entering Data

1. For each Category, key-enter the data and press the Return key to move on to the next Category.
2. After all of the first record is entered press Return.
3. Continue entering the remaining data and press Return after each entry.

Saving Data To Data Disk

1. To save information to the data disk, press the ESC key 2 times until the Main Menu appears on the screen.
2. From the Main Menu select Option 3, "Save Desktop Files to Disk." Press Return 3 times until the message appears that the data is being Saved and the Main Menu will be displayed.

**NOTE: You could Quit at this point. If you elect to stop, after you save the data, select from the Main Menu Option 6, Quit, and press Return and answer "Yes". Press Return.

Adding Files To Desktop (Continuation of the above activity)

1. If you are continuing the above activity, you should have the Main Menu on the screen.
2. Select Option 2, "Work With One Of The Files On The Desktop". Press Return to return to the "Membership List" file.
3. Press Apple-Z to obtain single-record layout.

Adding Files To Desktop (Start-up of previous data)

If you are not continuing from the above activity, you must follow this Start-Up Procedure to continue.

1. Load Appleworks Start Up and Program until the Main Menu appears on the screen.
2. Select "Add Files to the Desktop" and Return.
3. From the Add menu, select the current disk.
4. Select "Membership List" from the files and place onto the screen.
5. Press Apple-Z to obtain single-record layout.

Searching/Finding

In order to locate information on the screen, the Find function will be utilized. Assume you wish to find the telephone number of Candy Bahr.

1. Press Apple-F for Find.
2. Key-enter comparison information--BAHR. Press Return.
3. At this time the phone number of Candy Bahr can be obtained by viewing the record.

Editing a Record

In order to change information on a record, the Edit function would be utilized.

1. Using the Find function, locate Jane Doe's record. Apple-F, key-enter DOE. Press Apple-Y to clear-out the word Bahr.
2. Proceed to the ADDRESS Category using the Arrow keys.
3. Press Apple-E for Edit, this will now show a flashing, full-block cursor indicating the location.

4. Key-enter the new address, 6493 Prospect Street, over the old information and press Return when completed.
5. Press Apple-E when completed to shut-off the Edit function.
6. Press ESC once.

Adding Records

To add a record to the end of the file follow this procedure to get to the end of the file.

1. Press Apple-9, this will locate the cursor at the last record of this file.
2. Proceed through the Categories with the down Arrow key to the screen reading, "You are now past the last record of your file and can now start typing new records at the end."
3. Answer "Yes", a blank record will be displayed, and proceed to enter the new data for Bob Martin, 1999 99th Street, Garden, IA, 52375, Telephone number 322-294-1000.
4. Press ESC once.

Deleting Records

When a particular record is desired to be deleted, the following procedure is followed.

1. Using the Find function, locate I. M. Faast's record. Apple-F, key-enter Faast.
2. With the cursor on the first Category, Press Apple-D, Delete function, this highlights the record to be deleted.
3. Press Return. At this time the entire record of I. M. Faast is removed from the screen.

**NOTE: The record is still on the Data Disk until you Save the new data.

4. ESC to the Main Menu and Save the new information, Option 3, "Save Desktop Files to Disk." Press Return. (See Save to Data Disk discussed earlier in this guide)
5. Continue pressing the Return until the Save function takes place.
6. This record is now permanently removed from the file.

**NOTE: You could stop and Quit at this point. If you elect to stop, after you Save the data, select from the Main Menu, Option 6 Quit, press Return and answer "Yes". Press Return.

Adding Files to Desktop

If you are continuing the above activity, you should have the Main Menu on the screen. Select Option 2, "Work With One of the Files on the Desktop." Press Return to return to the "Membership List" file. If you are starting again by turning on the computer, refer to the previous "Add File to Desktop" (Start up with previous data) discussed earlier.

Printing

To Print a copy of the information keyed into the computer, follow this procedure.

1. With the "Membership List" file on the screen, press Apple-P.
2. With the Report Menu on the screen, press Option 2, "Create a new "tables" format." Press Return.
3. Key-enter the name of the report--"Members". Press Return.
4. In order to print the entire report, special features of Appleworks must be used by changing the characters per inch in the Printer Options. Press Apple-O.
5. Key-enter code CI. Answer the characters question by key-entering 12. Press Return.
6. Press ESC to return to the Report Format set-up screen.
7. Press Apple-P to print the report.
8. Select the appropriate printer, as predetermined for your computer and printer set-up with the Appleworks program, from the "Print the Report" screen and press Return.
9. Press Return.
10. How many copies, 1. Press Return.

OPTIONAL

If you do not have access to a printer and you desire to see the materials on the screen as it would be on the paper, follow this procedure.

1. From the Report Format screen, press Apple-P, printer options.
2. From the Print the Report Screen, select "The Screen". Press Return.
3. Key-enter the report date or press Return.
4. Press the Space Bar to return to the Report Format.

The hard copy that was just printed included all the Categories on the "Membership List". All the names were printed in the order they were key-entered. Notice, however, not all the information is printed because the columns were not wide enough to accommodate all the data.

Arranging/Sorting and Printing

1. Press ESC for the Report Menu.
2. Select Option 1, "Get a Report Format." Press Return.
3. Select Current Report Format: Members and Press Return.
4. In the Report Format, using the Arrow keys, place the cursor on the Category you desire to arrange.--Last Name.
5. Press Apple-A, select arrangement order Option 1, "From A to Z". Press Return.
6. To Print a hard copy, Press Apple-P.
7. Select from Print the Report Menu, the name of the printer attached to the computer and press Return.
8. Press Return.
9. Number of copies, 1. Press Return.
10. Save the new data. (Press ESC to return to the Main Menu, select Option 3). See Save to Data Disk discussed earlier in this guide.

PRODUCING USEFUL REPORTS

THE DATA ENTERED IN THE "MEMBERSHIP LIST" FILE CAN BE USED FOR VARIOUS REPORTS. NOT ALL THE DATA IN THE FILE MAY BE NEEDED IN A PARTICULAR REPORT. THEREFORE, THE REMAINING PORTIONS OF THIS ACTIVITY WILL BE DEVOTED TO SOME POSSIBLE REPORTS USING THIS DATA. THIS ACTIVITY WILL ATTEMPT TO ILLUSTRATE HOW THESE REPORTS MAY BE PRODUCED AND PRINTED FOR VARIOUS USES.

NAME LIST

To create a "Name List", proceed as follows:

Load

1. Load "Membership List" file to the Desktop. (Add Files to Desktop)
2. Press Apple-P for Report Menu screen.
3. Select Option 2, "Create a New Tables Format", press Return.
4. Key-enter "Name List" for the name of the new report. Press Return.

Delete Categories

1. Move the cursor using the Arrow key to the Address Category.
2. Press Apple-D to Delete this Category from this report. Press Apple-D to delete City, again for State, again for Zip Code, and again for Telephone.
3. Press the left Arrow key twice.

Change Format

1. To switch the Categories to different positions so the report is First Name, Last Name format.
2. Press Apple-Greater Than Symbol key (>) to switch the positions of the two Categories.

Print Report and Save

1. Press Apple-P and select the printer being used and continue pressing the Return until a hard copy is printed.
2. Save the new "Name List" Report. (Main Menu Option 3).

PRODUCING A TELEPHONE LIST OF ALL MEMBERS

Load

1. Load "Membership List".
2. Press Apple-P for a Report Menu.
3. Select Option 2, "Create a New Table Format"
4. Key-enter report name "Telephone List." Press Return.

NOTE: This is the original data on the screen.

Delete Categories

1. Move the cursor with the Arrow key to Address category and press Apple-D. Do the same with City, State, and Zip Code categories.

Print and Save

1. Press Apple-P and select the printer being used, and continue until the hard copy is printed.
2. Save the new Telephone List Report. (Main Menu Option 3.)

PRODUCING AN ADDRESS LIST FOR A CITY

Load

1. Load "Membership List".
2. Press Apple-P for a Report Menu.
3. Select Option 2, "Create a New Table Format"
4. Key-enter new report name "Address List". Press Return.

Selection Rules

1. Press Apple-R to Select Records Options.
2. Arrow down to the City category. Press Return.
3. Select Option 1, "Equals". Press Return.
4. Key-enter "Trotter City". Press Return.
5. Since this is the only Selection Rule press ESC.

Delete Categories

1. Since all the data needed for this report is from Trotter City, IA, delete the following Categories: City, State, and Zip Code. (Apple-D on the Category).

Change Column Width

1. Using the Left Arrow key, move back to the Address Category.
2. Press Apple Right-Arrow key 18 times to widen the Address Category. (If you wanted to reduce this category width, you would press Apple Left Arrow key until the desired width was obtained. The default width is 12 spaces.)

Print and Save

1. Press Apple-P and select the printer being used, and continue until the hard copy is printed.
2. Save the new "Address List" Report. (Main Menu Option 3.)

PRODUCING MAILING LABELS

Load

1. Load "Membership List".
2. Press Apple-P for a Report Menu.
3. Select Option 3, "Create a New 'Labels' Format"
4. Key-enter new report name "Mailing Labels". Press Return.

Format for Labels

1. Place the cursor on the letter "L" in the Last Name Category and press the Apple-Right Arrow key 20 times.
2. Move the cursor down to the beginning of the First Name Category, and press Apple-Up Arrow to move this Category up to line 1 of the new label.

3. Using the Apple-Arrow keys, move the following Categories for a mailing label format: The Address Category up to the line immediately below the First Name; move the City up to the line immediately below the Address; move the State to align below the "L"-letter on the Last Name category but remain on the City line, move the Zip Code 12 spaces to the right of the State category.
4. Delete the Telephone Category utilizing the Apple-D function when the cursor is located on the Telephone Category.
5. Place the cursor on the "L"-letter in the Last Name category. Press Apple-J. Continue this procedure with the "S"-letter in the State category, and the "Z"-letter in the Zip Code category. This function allows the label to be printed with a space between the categories when the label is printed.
6. "Each record will print 6 lines." This message should appear on the Report Format screen. Press Apple-D to delete the extra lines.

Arrange

1. Locate the cursor on the Zip Code Category on the Arrow symbol on the screen.
2. Press Apple-A to the Arrange screen.
3. Select the Arrangement Order Option 3, "From 0-9". Press Return. (By doing this function, the labels will be printed in order by Zip Codes for easy sorting when mailing.

**NOTE: Press Apple-O, (Printer options), Key-enter the code "PH". Press Return. Press ESC. This function removes the label headings from the printed copy.

Print and Save

1. Press Apple-P and select the printer being used, and continue until the hard copy is printed.
2. Save the new "Mailing List" Label Report. (Main Menu Option 3.)
3. Select Option 6, Quit, press Return-Yes.

LEARNING ACTIVITY: MEMBERSHIP LIST

Hardware necessary: 48K APPLE II with two disk drives and printer

Software necessary: DATA HANDLER Program disk and
Initialized blank data disk for each
student

BE SURE CAPS LOCK IS DOWN!!!!

Initializing a blank data disk

1. With DATA HANDLER program in Drive 1 and a blank data disk in Drive 2, load the program.

2. From the MAIN MENU, select CONFIGURE DATABASE and press RETURN.

3. From the CONFIGURATION MENU, select INITIALIZE DATABASE and press RETURN.

4. Select record size 126 and press RETURN.

5. Enter Y to the question, DO YOU REALLY WANT TO INITIALIZE (Y/N)?

I. CREATE AND USE A DATA BASE

1. Planning
2. Setting up and saving
3. Entering data
4. Saving to disk

5. Recalling
6. Searching
7. Editing a record
8. Adding records
9. Deleting records
10. Saving to disk

11. Recalling
12. Print file without sorting
13. Sorting

14. Print file with sorting

Planning and Setting up

Before beginning on the computer, the data base must be planned. The number of fields must be identified with the number of characters per field. From the attached membership list, the "characters" column length in Step 2 has been identified. The total of that column must not be more than 80 or it will not print all of the information on an 8 1/2" x 11" sheet of paper.

NOTE: After the DATA HANDLER program has been used once for this exercise, it will default to last-used information. Therefore, some of the questions asked in these materials may not be asked on the screen.

NOTE: Since DATA HANDLER records information on the disk at the point of entry, a person may quit at any time where the screen is on a menu without data being lost.

1. From the CONFIGURATION MENU, select ENTER/MODIFY DATA FIELDS.

2. With the cursor in the upper left-hand corner of the screen, enter the following information taken from the Membership List:

		Characters	
Last name	(press) return	10	return
First name	return	10	return
Address	return	19	return
City	return	12	return
State	return	2	return
Zip	return	5	return
Phone	return	12	return

NOTE: The address line contains 19 characters. When the address is entered in the records, it may be necessary to abbreviate to get it on the line.

3. Use the RETURN key to move forward to another field; use the ESC key to move backward.

4. When all the fields have been entered, press CTRL-Q. Answer Y to the question SAVE CONFIGURATION (Y/N)? and press RETURN.

5. Select Q and press RETURN to the MAIN MENU.

Entering Data

1. From the MAIN MENU, select ENTER/UPDATE RECORDS.

2. From the ENTER/UPDATE RECORDS MENU, select ENTER/MODIFY/VIEW RECORDS.

3. Enter all information for the ten names on the Learning Activity: Membership List with a RETURN after each entry.

4. CTRL-D deletes all information to the right of the cursor on the line. Reminder: RETURN and ESC moves the cursor forward and backward in the fields.

5. To quit entering records, enter Q and press RETURN.

6. DATA HANDLER will automatically save records to the disk.

Searching and Editing

ASSIGNMENT 1: Find Candy Bahr's phone number.

1. Select ENTER/MODIFY/VIEW from the ENTER/UPDATE RECORDS MENU.

2. Type BAHR on last name line.

3. View the correct information on the screen.

ASSIGNMENT 2: Find Jane Doe and record a change of address.
New address: 6493 Prospect Street

1. Type DOE and call up her record.

2. Press RETURN to address line.

3. Press CTRL-D to delete address.

4. Type in correct address.

5. Press RETURN to get to end of the record with a new record on the screen.

ASSIGNMENT 3: Add a new record with the following information: Bob Martin

1999 99th Street
Garden, IA 52375
322-294-1000

1. On new record screen, type in the above information.

ASSIGNMENT 4: Delete I. M. Faast record from file.

1. With cursor on Last Name field, press Q to return to ENTER/UPDATE RECORDS MENU.

2. Select DELETE RECORDS from ENTER/UPDATE RECORDS MENU and press RETURN.

3. Type FAAST on last name line and press RETURN. Question is DO YOU WISH TO DELETE THIS RECORD? Type Y and press RETURN.

4. Press Q and RETURN to quit as DATA HANDLER automatically saves the changes to the disk.

5. Press Q to get back to the MAIN MENU.

Printing the File

---

1. From the MAIN MENU, select GENERATE REPORTS/LABELS and press RETURN.

2. Select CREATE/MODIFY PRINT FORMAT and press RETURN.

3. Type "Membership List" as name of format and press RETURN.

4. Answer Y to question, WOULD YOU LIKE TO CREATE A FORMAT FILE WITH THIS NAME (Y/N).

5. Answer R to question, LABEL OR REPORT FORMAT.

6. Answer 80 to question, NO. OF PRINT CHARACTERS (80 OR 132).

7. Type number sequence in same order as given on the screen, i.e. Last Name = 1, First Name = 2, etc.

8. Enter CTRL-Q to save the format file and return to the REPORTS MENU.

9. Select PRINT REPORT/LABEL and press RETURN.

10. Enter "Membership List" when asked name of format and press RETURN.

11. Type "MEMBERSHIP LIST" also to be the title of the report and press RETURN. A copy will be printed.

Sorting and Printing

---

1. From REPORTS MENU, select SORT RECORDS and press RETURN.

2. Enter "1" in the last name field. (Enter numbers in more than one field if so desired, i.e. last name = 1, zip = 2, etc.)

3. Press CTRL-Q. The file will be sorted and the REPORTS MENU screen will appear.

NOTE: Sort options will be lost once the computer returns to the MAIN MENU. It is important, therefore, to print at this time.

4. Select PRINT REPORTS/LABEL from the REPORTS MENU.

5. Enter "MEMBERSHIP LIST" as the name of the format and press RETURN.

6. Enter "ALPHABETICAL LIST" as the title of the report and press RETURN. A copy will be printed.

II. PRODUCING USEFUL REPORTS

Reloading
Deleting fields
Changing report layouts

ASSIGNMENT 1 - Print a report "Name List" with first and last names only in alphabetical order by last name.

1. From REPORTS MENU, select CREATE/MODIFY PRINT FORMAT and press RETURN.

2. Enter "NAME LIST" and press RETURN.

3. Answer "Y" to question, "WOULD YOU LIKE TO CREATE A FORMAT FILE WITH THIS NAME Y/N" and press RETURN.

4. Answer "R" for report format and press RETURN.

5. Answer "80" for print characters and press RETURN.

6. Enter sequence columns with "2" in Last Name, "1" in First Name, and leave rest of columns blank.

7. Press CTRL-Q to save format file.

8. From REPORTS MENU, select SORT RECORDS and press RETURN.

9. Enter "1" in Last Name and press CTRL-Q.

10. From REPORTS MENU, select PRINT REPORT/LABEL and press RETURN.

11. Enter "NAME LIST" as name of format and press RETURN.

12. Enter "NAME LIST" as title of report and press RETURN. A hard copy will be printed.

ASSIGNMENT 2: Print a report, "Phone List," with last name first in alphabetical order, first name, and phone number.

.

1. From REPORTS MENU, select CREATE/MODIFY PRINT FORMAT and press RETURN.

2. Enter "PHONE LIST" and press RETURN.

3. Answer "Y" to question, "WOULD YOU LIKE TO CREATE A FORMAT FILE WITH THIS NAME Y/N" and press RETURN.

4. Answer "R" for report format and press RETURN.

5. Answer "80" for print characters and press RETURN.

6. Enter sequence columns with "1" in Last Name, "2" in First Name, "3" in Phone, and leave rest of columns blank.

7. Press CTRL-Q to save format file.

8. From REPORTS MENU, select SORT RECORDS and press RETURN.

9. Enter "1" in Last Name and press CTRL-Q.

10. From REPORTS MENU, select PRINT REPORT/LABEL and press RETURN.

11. Enter "PHONE LIST" as name of format and press RETURN.

12. Enter "PHONE LIST" as title of report and press RETURN. A hard copy will be printed.

ASSIGNMENT 3: Print a report "Trotter City List" with Last Name in alphabetical order, First Name, Address, and Phone.

1. From REPORTS MENU, select CREATE/MODIFY PRINT FORMAT and press RETURN.

2. Enter "TROTTER CITY LIST" and press RETURN.

3. Answer "Y" to question, "WOULD YOU LIKE TO CREATE A FORMAT FILE WITH THIS NAME Y/N" and press RETURN.

4. Answer "R" for report format and press RETURN.

5. Answer "80" for print characters and press RETURN.

6. Enter sequence columns with "1" in Last Name, "2" in First Name, "3" in Address, "4" in Phone, and leave rest of columns blank.

7. Press CTRL-Q to save format file.

8. From REPORTS MENU, select SORT RECORDS and press RETURN.

9. Enter "1" in Last Name and press CTRL-Q.

10. From REPORTS MENU, select SEARCH RECORDS and press RETURN.

11. Enter "TROTTER CITY" on City line and press RETURN to the end. The REPORTS MENU will appear.

12. From REPORTS MENU, select PRINT REPORT/LABEL and press RETURN.

13. Enter "TROTTER CITY LIST" as name of format and press RETURN.

14. Enter "TROTTER CITY LIST" as title of report and press RETURN. A hard copy will be printed.

ASSIGNMENT 4: Prepare Mailing Labels

NOTE: It is important to exit back to the MAIN MENU at this point to eliminate the previous search. To do this, press Q and RETURN.

NOTE: This exercise is written for labels printed in the following manner. Adjust for labels of other sizes.

printed in No. of columns	1	(question 6 below)
length of label left to right	3.5"	(question 7 below)
height of label top to bottom	.937"	(question 8 below)
top of label in one row to top of label in another row	1"	(question 9 below)

1. From the MAIN MENU, select GENERATE REPORTS/LABELS and press RETURN.

2. From the REPORTS MENU, select CREATE/MODIFY PRINT FORMAT and press RETURN.

3. Enter "Mailing Labels" and press RETURN.

4. Answer "Y" to question, "WOULD YOU LIKE TO CREATE A FORMAT FILE WITH THIS NAME Y/N" and press RETURN.

5. Answer "L" for label format and press RETURN.

6. Answer "1" for number of labels and press RETURN.

7. Answer "3.5" for length of label left to right and press RETURN.

8. Answer ".937" for height of label top to bottom and press RETURN.

9. Answer "1" for top of label in first row to top of label in second row and press RETURN.

10. For rows and sequences, enter the following information:

	ROW	SEQUENCE
Last Name	1	2
First Name	1	1
Address	2	1
City	3	1
State	3	2
Zip	3	3

11. Press CTRL-Q to save format.

12. Select PRINT REPORT/LABEL and press RETURN.

13. Enter "Mailing Labels" for format and press RETURN.

14. Insert labels into printer and print test labels, if desired.

15. Enter number of times to print each label and press RETURN.

III. ADVANCED FUNCTIONS

Setting standard or default values

When a data base has the same information to place in a field or several of the fields, it is easier to place a default value in that field so it will not have to be entered each time when keying in records.

1. From the MAIN MENU, select CONFIGURE DATABASE.

2. From the CONFIGURATION MENU, select ENTER/MODIFY DEFAULT VALUES. The screen containing the defined data fields will appear.

NOTE: At some point (usually after the first or second line), a blank line will appear. This line separates "Key Data" from the remainder of the file. NO DEFAULT VALUES SHOULD BE ENTERED IN THE KEY DATA FIELDS which appear above the blank line.

3. Using the RETURN key, tab down to the State field and enter "IA."

4. Continue to tab to the end with the RETURN key and answer "Y" to the question on saving default values.

NOTE: For entering additional records, "IA" will be in place. If another state is desired, simply overlay the data with another state. This will not affect other records.

Changing number of key fields

Key data fields are "access fields" or the ones used to view data. In the previous project, DATA HANDLER automatically sets "1" as a key data field. For example, the last name "Doe" was used to find the record for Jane Doe. With the key data field set on "1," however, it would be impossible to add a "John Doe" record as DATA HANDLER would call up "Jane Doe" each time "Doe" was entered.

The number of key data fields must be changed according to the number of fields necessary for comparison to distinguish each record. It is important to keep this number as small as possible.

1. From the MAIN MENU, select CONFIGURE DATABASE and press RETURN.

2. From the CONFIGURATION MENU, select CHANGE NUMBER OF KEY FIELDS and press RETURN.

3. Enter "2" for number of fields and press RETURN.

DATA HANDLER will now search two key fields when looking for records.

LEARNING ACTIVITY: MEMBERSHIP LIST

TO THE TEACHER

Before setting up and entering data into dBase III, you must complete some advance preparation. This includes planning the fields to be used. Three items need to be identified.

1. A name that will identify each field on the screen.
2. The type of data that will be entered in each field.
3. The width of each field or the largest number of characters that will be entered in each field.

When identifying these three items, the following guidelines must be followed:

1. Name: May be 10 or less characters. The first character must be a letter. Remaining characters may be numbers or letters. No blank spaces should be used. An underscore may be used instead of a space.
2. Type: Select one of the following field types.
   - C for Character fields - any printable character.
   - D for Date field - used to store a date. The following format is used, MM/DD/YY (month/day/year). Size is always eight characters.
   - N for Numeric field - used for integer or decimal numbers. May contain a plus or minus sign.
3. Width: Count the maximum number of characters to be used for the field. A decimal, plus/minus sign are counted as a character.

For the Learning Activity: Membership List, the following information will be used:

FIELD	FIELD NAME TO BE USED	TYPE	WIDTH
Individual's First Name	FIRST_NAME	C	8
Individual's Last Name	LAST_NAME	C	10
Street Address	ADDRESS	C	29
City	CITY	C	13
State	STATE	C	2
Zip	ZIP	N	5
Telephone Number	PHONE	C	12

A formatted blank disk is needed to store the data base. Refer to the DOS manual regarding formatting before beginning this example. This disk will be referred to as the data disk.

STUDENT ACTIVITY

Loading dBase III

With the computer off, put the operating system (DOS) into disk drive A or the left disk drive and turn on the machine. The screen will display a message asking for the current date. It is not necessary to enter the date so simply press return. The machine will ask for the current time, press return. An A> prompt is now displayed on the screen. Remove the DOS disk and insert the dBase III system (program) disk. With the cursor next to the A> prompt, type DBASE in either all caps or lower case.

NOTE: The ** will be used in some of the following directions to indicate what should be entered. Do not type the "**".

A blinking cursor underline will appear at the bottom of the screen to the left.

The dot to the left of the blinking cursor is referred to as the dot prompt. This dot prompt is used by the program to show where word commands are to be entered. If a mistake is made while keying a command, use the backspace key to erase.

Because some computers have one disk drive and others have two, it is necessary to configure dBase III according to the number of disk drives. Type the following command at the dot prompt that applies to the particular machine being used.

One disk drive machine:
** SET DEFAULT TO A:

Two disk drive machine:
** SET DEFAULT TO B:

The data disk for a two disk drive machine can now be put in drive B, the disk drive on the right. A one disk drive machine will be prompted by the computer when to put in the data disk or the program disk.

Setting up the Screen

The command CLEAR is used to clear the screen to begin creating the data base screen layout. Type CLEAR next to the dot prompt. Press return.

The screen is clear and the dot prompt is displayed in the upper left corner of the screen with the blinking cursor (underline) next to it. The command CREATE is used to begin creating the actual data base. Type CREATE next to the dot prompt. Press return.

The message "Enter the name of the new file:" will be displayed. A name is given to the file that will store the data that is entered. This name is used to distinguish this file from other files. There are some guidelines that must be followed when determining the name of the file.

A filename:

1. May be eight characters or less in length.
2. First character must be a letter. Remaining characters may be anything--no spaces should be used.
3. A suggestion is to make the filename as meaningful as possible in relation to the data being stored in that file.

The filename to be used for this example is ADDRESS. Enter ADDRESS, press return.

After entering the filename and pressing return, a screen for defining each field will be displayed.

Defining Each Field

Locate the cursor which is the blinking underscore. It is under the column labeled "field name." Follow these steps:

1. Enter the name to be used for the first field, FIRST_NAME, press return. The cursor will move to the next column.

2. Enter a one character code which will identify what type of data will be entered in this field. Since FIRST_NAME is a character field, enter a C but do not press return. The cursor will automatically move to the next column.

3. Enter a number which is the maximum width of the field. FIRST_NAME is 8 characters wide, enter 8 and press return.

Since FIRST_NAME is a character field, the cursor will not move to the "Dec" column. This is for indicating how many places after the decimal point will be used for a numeric field. Therefore, the cursor will move to the next line and is ready to receive information for the next field.

Follow these steps for each of the fields. (Use the backspace or arrow keys to move the cursor for making corrections.)

```
**   LAST_NAME    (return)
**   C
**   10
**   ADDRESS      (return)
**   C
**   29
**   CITY         (return)
**   C
**   13           (return)
**   STATE        (return)
**   C
**   2            (return)
**   ZIP          (return)
**   N
**   5            (return)
**   0            (return)
**   PHONE        (return)
**   C
**   12           (return)
```

Defining the fields is completed. The cursor is on the next line in the field column which is blank. Press return to end defining the fields and to continue.

The cursor will move to the bottom of the screen and the message "Hit RETURN to confirm--any other key to resume" will be displayed. Press return.

With the fields defined, it is now possible to enter the names and addresses from the Learning Activity: Membership List.

Entering Data

The following screen will be displayed in the upper lefthand corner, "Input data records now? (Y/N)." Enter Y for yes.

The screen will then show the fields with the cursor next to the FIRST_NAME field as follows.

```
Record No.     1
FIRST_NAME
LAST_NAME
ADDRESS
CITY
STATE
ZIP
PHONE
```

Notice the first field is Record No. This field was developed by the computer to number each record. This field is not used to enter data and will be automatically incremented by one for each new record.

When entering data, there are several keys that can be used to move the cursor from field to field and to make corrections.

Backspace -	Delete characters to the left of the cursor or type over characters for corrections.
Arrow keys -	Move the cursor to any location on the screen.
Ins (insert key) -	Located on the numeric key pad as the zero. When pressed, any characters typed will be inserted. Pressing again will turn insert off.
Del (delete key) -	Located on the numeric key pad as the decimal. Deletes characters at the cursor and to the right of the cursor.

Refer to the Learning Activity: Membership List for the names and addresses. Enter the data for each field from the address list. Press return after each field entry to advance to the next field. The STATE, ZIP, and PHONE fields will be the exact width so the cursor will automatically advance to the next field without pressing return. The computer will beep indicating the end of the field width.

After entering the phone number for the first member, the computer will beep and all the fields will be cleared and the cursor will move back to the FIRST_NAME field. Notice the record number has increased to 2. The second address can be entered.

Continue entering until all the addresses are entered. When finished, the blank fields and record number 11 will be displayed. Press the Escape key to terminate data entering. A dot prompt will appear at the bottom of the screen.

Proceed to Viewing the Data for the next step, or type the command QUIT to turn the machine off. If QUIT is entered, you will need to return to Starting dBase III before proceeding to Viewing the Data.

Viewing the Data

The dot prompt has appeared indicating that the data is not being used. To view the data, the EDIT command is entered. Enter EDIT and press return.

Whenever a dot prompt appears, type EDIT to return to viewing records.

View Records: The cursor moves to the FIRST_NAME field. Any corrections can be made to this record. To view other records, use the Pg Up and Pg Dn keys located on the numeric key pad on the number 9 key and the number 3 key. These keys will move between records.

Pg Up - Will advance to the next record
Pg Dn - Will move to the previous record

ASSIGNMENT 1: You need to call Candy Bahr to confirm an appointment. View her record to find her telephone number.

In talking with Ms. Bahr, she has indicated that Jane Doe has moved. Find Jane Doe's address. Move to the address line using the appropriate keys. Change her address to: 6493 Prospect Street.

Deleting Records

To delete a record, the record number is needed. The command DELETE RECORD is used with the record number. This is entered next to the dot prompt.

ASSIGNMENT 2: I. M. Faast has moved away and needs to be removed from your membership list.

1. Find I. M. Faast's record, remember record number (5).
2. Enter DELETE RECORD 5 and press return.
3. Enter PACK

I. M. Faast's record has been deleted from the address list.

Adding Records

The command APPEND is used to add records to the file. The command is entered at the dot prompt. After deleting I. M. Faast, the cursor should be next to the dot prompt.

ASSIGNMENT 3: Bob Smith has joined your organization and needs to be added to your records.

1. Enter APPEND and press return.
2. Enter the following information:

Bob Martin
1999 99th Street
Garden, IA 52375
322-294-1000

3. Press the Escape key to terminate data entering. A dot prompt will appear at the bottom of the screen.

Proceed to Using an Existing File or enter the command QUIT to be able to turn off the machine. If QUIT is entered, you will have to return to Starting dBase III before proceeding to Using an Existing File.

Using an Existing File

To use a stored file, the command USE is needed to select which file will be used. Enter the command USE and the filename ADDRESS.

Another dot prompt will appear below this line. Commands can be entered to use the file ADDRESS. Examples would be EDIT, DELETE, and APPEND.

Printing

To print records that have been entered in the file, a file is created which stores a report format. The command for this is CREATE REPORT followed by a filename. The same guidelines for determining the filename apply to determining report filenames. The filename for this example will be ADDRPRT.

At the dot prompt, enter CREATE REPORT ADDRPRT and press return.

The upper left part of the screen displays the name of the fields in the file, what type, and the width. For this example, a simple report will be developed and used.

Press Pg Dn twice.

The new screen displays an area called the Field Contents. This is where the names of the fields to be printed are identified.

Enter FIRST_NAME and return to identify the field to be printed.

The cursor moves to the area labeled Field header. Headers will not be used so press Pg Dn.

Another screen is displayed for entering another field to be printed.

Enter LAST_NAME.

The cursor again moves to the area labeled Field header. Again press Pg Dn.

Follow these steps for each field. The address field has been intentionally omitted.

```
**   CITY      (return)
**   Press Pg Dn
**   STATE     (return)
**   Press Pg Dn
**   ZIP       (return)
**   Press Pg Dn
**   PHONE     (return)
**   Press Pg Dn
**   Press Pg Dn  (This saves the report)
```

The dot prompt will now appear on the screen. To print the report to the printer, the command REPORT FORM is used with the report format filename and another command TO PRINT.

Turn on the printer. At the dot prompt, enter the following command:

```
**   REPORT FORM ADDRPRT TO PRINT (press return)
```

This will print the address list in the order the names were entered.

Sorting

To print the list in alphabetical order according to last name, a new file needs to be created which will store the sorted names. The command SORT TO with the sort filename and the command ON with the name of the field to be used for sorting will create the new sort file. For this example, the sort filename will be ADDSORT and the field will be LAST_NAME. Enter the command in the following format:

```
**   SORT TO ADDSORT ON LAST_NAME  (press return)
```

The computer will take some time to sort the file and store the sorted names in the new file. When the sort is finished, the dot prompt will appear. Develop a report for this list of sorted names using the CREATE REPORT command. Enter the following commands.

```
**   USE ADDSORT  (press return)
**   CREATE REPORT SORTRPRT  (press return)
```

The procedures for creating the report are similar to the procedures used for creating the ADDRPRT. The upper left part of the screen displays the name of the fields in the file, what type, and the width. Enter the following:

```
**   Press Pg Dn
**   Press Pg Dn
**   FIRST_NAME (press return)
**   Press Pg Dn
**   LAST_NAME  (press return)
**   Press Pg Dn
```

(Again, the address field has been intentionally omitted.)

```
**   CITY  (press return)
**   Press Pg Dn
**   STATE  (press return)
**   Press Pg Dn
**   ZIP  (press return)
**   Press Pg Dn
**   PHONE  (press return)
**   Press Pg Dn
**   Press Pg Dn
```

The dot prompt will now appear on the screen. To print the report to the printer, the command REPORT FORM is used with the report format filename and another command TO PRINT.

Make sure the printer is on. At the dot prompt, enter the following command.

```
**   REPORT FORM SORTRPRT TO PRINT  (press return)
```

This will print the address list to the printer in the sorted order according to last name.

PRINTING USEFUL REPORTS

With the data entered, an individual can now print a variety of useful reports. There are three reports that you need from your membership list. These are a name list, a telephone list, and a name list sorted by city.

These reports are different from the reports already printed. The previous reports listed all the information in the file. These reports will print only the needed information. These reports are produced using different report formats and different sorts.

Name List

```
**   USE ADDSORT    (press return)
**   CREATE REPORT NAMERPRT  (press return)
**   Press Pg Dn
**   Press Pg Dn
**   FIRST_NAME  (press return)
**   Press Pg Dn
**   LAST_NAME  (press return)
**   Press Pg Dn
**   Press Pg Dn
**   REPORT FORM NAMERPRT TO PRINT (press return)
```

Telephone List

```
**   USE ADDRESS (press return)
**   SORT TO TELESORT BY PHONE  (press return)
**   USE TELESORT  (press return)
**   CREATE REPORT TELERPRT  (press return)
**   Press Pg Dn
**   Press Pg Dn
**   FIRST_NAME  (press return)
**   Press Pg Dn
**   LAST_NAME  (press return)
**   Press Pg Dn
**   PHONE  (press return)
**   Press Pg Dn
**   Press Pg Dn
**   REPORT FORM TELERPRT TO PRINT  (press return)
```

46

City List

```
**   USE ADDRESS  (press return)
**   SORT TO CITYSORT BY CITY  (press return)
**   USE CITYSORT  (press return)
**   CREATE REPORT CITYRPRT  (press return)
**   Press Pg Dn
**   Press Pg Dn
**   FIRST_NAME  (press return)
**   Press Pg Dn
**   LAST_NAME  (press return)
**   Press Pg Dn
**   CITY  (press return)
**   Press Pg Dn
**   Press Pg Dn
**   REPORT FORM CITYRPRT TO PRINT  (press return)
```

LEARNING ACTIVITY: MEMBERSHIP LIST

==========
TEACHER NOTES
==========

... Reproduce the Learning Activity: Membership List for each student.

... Have initalized (DOS 3.3) DATA DISKS for each student or computer.

... When using the machine, never remove the PFS:File or Data Disk UNLESS the Main Menu appears on the screen.

... PFS:File requires only a single disk drive system.

... PFS:File is a memory resident program. Once you have started the computer with PFS:File it is NOT needed again unless you restart your computer. When the PFS:File Main Menu appears on the screen, remove the disk and place the student Data Disk in the disk drive. You can then use the same PFS:File disk to start another student's computer.

... The student may QUIT at any point in this Learning Activity when the PFS Main Menu appears on the screen.

... This activity is written for the Apple //e //c version of PFS:File. You can use this activity with any version of PFS:File (Apple II+, Commodore, IBM, etc.) but you will need to note the different key strokes necessary to perform the specific function of the program.

STUDENT ACTIVITY SHEET

===== PLANNING TO CREATE A DATA BASE =====

To begin this activity, you should start your computer with the PFS:File program disk provided by your instructor. In addition, you should have a Data Disk and the handout with the membership list of information.

** Insert the PFS:File disk in drive 1.
** Turn on the power to your computer, monitor and printer (if available). The PFS:File Main Menu should appear on the screen.

PFS:FILE FUNCTION MENU

1	DESIGN FILE	4	SEARCH/UPDATE
2	ADD	5	PRINT
3	COPY	6	REMOVE

SELECTION NUMBER: _____
FILE NAME: _____

** Remove the PFS:File from the disk drive and insert the data disk. You will not need the PFS:File program disk unless you must restart your computer.
** Be sure the CAPS LOCK key is down.

Review these special keyboard keys and their functions.

Control-C	Tells the program to CONTINUE.
ESC key	Cancels the current function and returns to the Main Menu.
Return key	Moves cursor to beginning of next line.
TAB key	Moves cursor to the next field or item on the menu screens.
"arrow" keys	Moves the cursor one space in the direction of the arrow.

===== SETTING UP THE DATA BASE =====

With the Design File function (number 1), you will create a file in which to store your membership list of information.

** For SELECTION NUMBER enter a 1
** Press the TAB key.
The cursor will move to FILE NAME.
** For FILE NAME type LIST
This is the name of our entire membership list.
** Press Control-C (While holding the control key down, press the letter c.)

The Control-C tells the program to continue to the next function. The DESIGN FILE MENU should now be on your screen. This menu gives you two options: To create a file or to change a design.

** Press 1 To create a file
** Press Control-C To continue

A warning message will appear on the screen. This message is reminding you that your data disk will be prepared to store your membership list. Your data disk should be in disk drive 1.

** Press Control-C

You will hear the disk drive prepare your data disk and label your file with the name LIST. When your disk has been prepared, the screen on which you set up your fields of information will appear. The screen looks blank except for the message area at the bottom. Note that it shows 0% FULL because we have not entered any data into our file called LIST. The name of the file appears in the lower left-hand corner. In the middle, it reminds us that we are in the design or setup stage of the program. On the right it shows that we are on page 1 of our record design.

You are now ready to type the names of the fields into our record design. You MUST use a colon (:) after each field. Check your screen carefully to be sure the field names are spelled correctly and that each field has a colon after it. Use your arrows to move the cursor to the item that needs correcting and retype the field name.

```
**  Type  FIRST NAME:      press return
**  Press return
**  Type  LAST NAME:       press return
**  Press return
**  Type  ADDRESS:         press return
**  Press return
**  Type  CITY:            press return
**  Press return
**  Type  STATE:           press return
**  Press return
**  Type  ZIP CODE:        press return
**  Press return
**  Type  PHONE NO:        press return
```

If you need to make corrections, they MUST be made now before we continue.

** If everything is correct, press Control-C

You have created the layout of your records. This is known as a template. It does not contain specific information. It only labels the information that we will type into the computer. This template has been saved to disk as a file called LIST.

===== ENTERING INFORMATION INTO OUR DATA BASE =====

You should now have your Main Menu on your screen.

Once we have designed our record with the field names and saved it to disk, we are now ready to enter (ADD) our membership list information.

The cursor is located at the SELECTION NUMBER.

```
**  For SELECTION NUMBER press  2    ADD
**  Press the TAB key once
**  For FILE NAME  type   LIST
**  Press  Control-C
```

The field names will appear on the screen in inverse video. This makes it easier to distinguish between the field names and the information you will be entering.

** From the membership list, type the data for the first person.

Press the TAB key to move from one field to the next. After the data is entered for the last field and you press the TAB key, the cursor will return to the first field. Check the information in each field of this record. If needed, make the necessary corrections.

** Press Control-C

The first record is now saved into your file called LIST on your disk. A new form appears on the screen.

** Continue typing in the data from the membership list. Follow the same procedure as you did to enter the information for the first record. Proofread as you type. Make any corrections before you continue to the next person on the list.

After you have entered all the records (10 total), you should have a new form on your screen.

** Press ESC key You will return to the Main Menu.

===== VIEW/EDIT/ADD/DELETE A RECORD FROM THE DATA BASE =====

The PFS Main Menu should appear on your screen. The cursor should be at the SELECTION NUMBER.

View a Record

You need to call Candy Bahr to set up a meeting. In order to call Candy you will need to SEARCH for Candy's record (which contains her phone number).

** FOR SELECTION NUMBER Press 4 SEARCH/UPDATE
** Press TAB key once
** For FILE NAME type LIST
** Press Control-C

A blank form will appear on the screen with the words RETRIEVE SPEC in the message area at the bottom. The program is asking you the question, "What information do you want to search for in the file?"

** Press the TAB key once.
The cursor should be at the LAST NAME field.
** Type BAHR
You want to search for Candy Bahr's record.
** Press Control-C

The program will search the file looking for Candy Bahr's record. Her record will be displayed on the screen and you can VIEW her record and obtain her phone number.

** Press Control-C

If you have several members with the same last name (BAHR), the computer will display that person's record on the screen. Because we only have one record that will match our search, the screen will display "FORMS FOUND: 1".

** Press Control-C
You are returned to the Main Menu and the cursor is positioned at SELECTION NUMBER:

Edit A Record

During our telephone conversation with Candy Bahr, she reminded you that Jane Doe has a new address. You will need to search your file for Jane's record and then EDIT the address field.

The PFS Main Menu should be on your screen.

** For SELECTION NUMBER press 4 Search/Update
** Press the TAB key once
** For FILE NAME type LIST
** Press Control-C

The blank form will again appear on your screen with the words "RETRIEVE SPEC" in the message area at the bottom. We want to search for Jane Doe.

** Press the TAB key once.
** Type DOE in the LAST NAME field.
** Press Control-C

The program will search for Jane Doe's record and will display it on the screen.

** Press the TAB key two times. The cursor should be at the beginning of the ADDRESS FIELD.

To edit this record you will type the new address over the old address.

** Type Jane Doe's new address: 6493 Prospect Street
This record has been edited and is now updated.
** Press Control-C
The program will continue the search for other members whose last name is DOE.
Because we only have one record that will match our search, the screen will display "FORMS FOUND: 1".
** Press Control-C to return to the Main Menu.

ADD A Record

We need to add a new member to our membership list file. The PFS Main Menu should be on your screen.

** For SELECTION NUMBER press 2 ADD
** Press the TAB key once
** For FILE NAME type LIST
** Press Control-C

A blank form will appear on your screen with the words "FORM 11" in the message area at the bottom.

** Type the correct information in the fields. Press the TAB key to move from one field to the next.

Bob Martin
1999 99th Street
Garden, IA 52375
322-294-1000

** Press Control-C
The new record for Bob Martin has been added to the file and a blank form reappears on the screen.
** Press the ESC key to return to the Main Menu.

DELETE A Record

I. M. Faast has moved out of state. You will need to permanently delete this record from the file. The PFS Main Menu should be on your screen.

** For SELECTION NUMBER press 4 SEARCH/UPDATE
** Press the TAB key once
** For FILE NAME type LIST
** Press Control-C

A blank form will appear on your screen with the words "RETRIEVE SPEC" in the message area at the bottom. We want to search for I. M. Faast.

** Press the TAB key once
** Type FAAST in the Last Name field.
** Press Control-C

The program is searching for FAAST. This record will appear on your screen. This is the same procedure to VIEW and EDIT a record. Now you want to permanently delete this record for I. M. FAAST.

** Press Control-R

Before this form is permanently deleted (removed) from the file, the screen shows the message; "CURRENT FORM ABOUT TO BE REMOVED"

** Press Control-C
I. M. FAAST has been deleted from the file.

Again, the program will continue to search for other members whose last name is FAAST. Because we only have one record that will match our search, the screen will display "FORMS FOUND: 1"

** Press Control-C to return to the Main Menu.

===== PRINTING USEFUL REPORTS FROM THE DATA BASE =====

The purpose of a Data Base is to view/edit/add/delete records from a file and to provide the user with useful printed reports. These reports provide the user with only the information requested from the file.

MEMBERSHIP LIST -- REPORT #1

The PFS Main Menu should be on your screen. Our first membership list will be to print our entire list in the same order as it appears in the file.

** For SELECTION NUMBER press 5 PRINT
** Press the TAB key once
** For FILE NAME type LIST
** Press Control-C
The PRINT MENU will appear.
** Press 1 PRINT FORMS
** Press Control-C

A blank form will appear on your screen with the words "RETRIEVE SPEC" in the message area at the bottom. Because we want to retrieve everyone in our file, we do NOT enter any specific search information.

** Press Control-C
The PRINT OPTIONS MENU appears on the screen.

For each report, PREDEFINED PRINT SPEC is left blank.
** Press the TAB key to PRINT ITEM NAMES (Y/N): and Type N
** Press the TAB key to ADD LINEFEED CHARACTER (Y/N) Type N
When the report is printed and if the paper does not advance correctly (overprints on the same line), change this option to Y.
** Press the TAB key to LINES PER PAGE: and type 13.
(Lines per page means the number of lines needed for each record.)
** Press the TAB key to NUMBER OF COPIES: and type 1
** Press the TAB key to PAUSE BETWEEN PAGES (Y/N): type N

The PRINTER CONTROL CODES is left blank.

** Press Control-C

The blank form will appear on your screen with the words "PRINT SPEC" in the message area at the bottom. We want to print ALL the information from each record.

** Type the capital letter X in EACH field. Press the TAB key to move from one field to the next.

Be sure your printer is turned on and the paper is ready to be printed.

** Press Control-C
The membership list will now be printed.

After the last form is printed, the message on the screen will display "FORMS PRINTED: 10"

** Press Control-C to return to the Main Menu.

MEMBERSHIP LIST (IN ALPHABETICAL ORDER) -- REPORT #2

An alphabetical listing of our membership list would be more useful. A person is able to more quickly find a member's name on a printout if the names are in alphabetical order.

** For SELECTION NUMBER press 5 PRINT
** Press the TAB key once
** For FILE NAME type LIST
** Press Control-C
The PRINT MENU will appear.
** Press 1 PRINT FORMS
** Press Control-C

A blank form will appear on your screen with the words "RETRIEVE SPEC" in the message area at the bottom. Because we want to retrieve everyone in our file, we do NOT enter any specific search information.

** Press Control-C
The PRINT OPTIONS MENU appears on the screen.

For each report, PREDEFINED PRINT SPEC is left blank.

** Press the TAB key to PRINT ITEM NAMES (Y/N): and Type N
** Press the TAB key to ADD LINEFEED CHARACTER (Y/N) Type N. When the report is printed and if the paper does not advance correctly (overprints on the same line), change this option to Y.
** Press the TAB key to LINES PER PAGE: and type 13. (Lines per page means the number of lines needed for each record.)
** Press the TAB key to NUMBER OF COPIES: and type 1
** Press the TAB key to PAUSE BETWEEN PAGES (Y/N): type N

The PRINTER CONTROL CODES is left blank.

** Press Control-C

The blank form will appear on your screen with the words "PRINT SPEC" in the message area at the bottom. We want to print ALL the information from each record.

** Type a capital letter X in EACH field.
** Press the TAB key to the Last Name field and type a capital letter S after the X (LAST NAME:XS) The letter S tells the computer to SORT and arrange the print out in alphabetical order.
** Press Control-C
The membership list is printed in alphabetical order.
** Press Control-C to return to the Main Menu.

MEMBERSHIP LIST (ALPHABETIZED LIST OF NAMES ONLY)--REPORT #3

This report will list only the first name and last names of our members in alphabetical order. We will follow the same general procedure as report #1 and report #2.

** For SELECTION NUMBER press 5 PRINT
** Press the TAB key once
** For FILE NAME type LIST
** Press Control-C
** Press 1 PRINT FORMS
** Press Control-C
The RETRIEVE SPEC screen appears.
** Press Control-C
This will retrieve everyone in our file.
The PRINT OPTIONS MENU appears on the screen.
** Press the TAB key from one item to the next and type this information.

PREDEFINED PRINT SPEC:
PRINT ITEM NAMES (Y/N): N
ADD LINEFEED CHARACTERS (Y/N): N
LINES PER PAGE: 2
NUMBER OF COPIES: 1
PAUSE BETWEEN PAGES (Y/N): N
PRINTER CONTROL CODES:

** Press Control-C
The PRINT SPEC screen appears.
** Type the plus symbol + for the First Name field
The plus symbol tells the computer to print the field and the next field on the same line.
** Press the TAB key
** Type the capital letters XS for Last Name field.
** Press Control-C
Our membership list (with names only) will be printed.
** Press Control-C to return to the Main Menu.

PHONE DIRECTORY -- REPORT #4

The president of our organization wants to alphabetize the list of members and include their phone numbers.

** For SELECTION NUMBER press 5 PRINT
** Press the TAB key once
** For FILE NAME type LIST
** Press Control-C
** Press 1 PRINT FORMS
** Press Control-C
The RETRIEVE SPEC screen appears.
** Press Control-C
This will retrieve everyone in our file.
The PRINT OPTIONS MENU appears on the screen.
** Press the TAB key from one item to the next and type this information.

PREDEFINED PRINT SPEC:
PRINT ITEM NAMES (Y/N): N
ADD LINEFEED CHARACTERS (Y/N): N
LINES PER PAGE: 2
NUMBER OF COPIES: 1
PAUSE BETWEEN PAGES (Y/N): N
PRINTER CONTROL CODES:

** Press Control-C
The PRINT SPEC screen appears.
** Type the plus symbol + for the First Name field
** Type the plus symbol and the capital letter S (+S) for the Last Name field.
** Press the TAB key to the Phone No field and type a capital letter X
** Press Control-C
Our phone directory will be printed.
** Press Control-C to return to the Main Menu.

TROTTER CITY ADDRESS BOOK -- REPORT #5

The president of our organization wants an alphabetized list of only those members from Trotter City.

The PFS Main Menu should be on the screen.

** For SELECTION NUMBER press 5 PRINT
** Press the TAB key once
** For FILE NAME type LIST
** Press Control-C
** Press 1 PRINT FORMS
** Press Control-C
The RETRIEVE SPEC screen appears.

The president wants only those members from Trotter City.

** Press the TAB key to the CITY field.
** Type TROTTER CITY
** Press Control-C
The PRINT OPTIONS MENU appears.
** Press the TAB key from one item to the next.
Type the necessary information.
PREDEFINED PRINT SPEC:
PRINT ITEM NAMES (Y/N): N
ADD LINEFEED CHARACTERS (Y/N): N
LINES PER PAGE: 3
NUMBER OF COPIES: 1
PAUSE BETWEEN PAGES (Y/N): N
PRINTER CONTROL CODES:

** Press Control-C
The PRINT SPEC screen appears.
** Type the plus symbol + for the First Name field
** Type +S for Last Name field
** Type + for Address field
** Type X for Phone No: field
** Press Control-C
Our Trotter City address book is printed.
** Press Control-C to return to the Main Menu.

MAILING (ADDRESS) LABELS -- REPORT #6

In order to mail information of our next meeting to each member, you need to print mailing labels. The post office requires that these letters be grouped by zip code. The PFS Main Menu should be on the screen.

** For SELECTION NUMBER press 5 PRINT
** Press the TAB key once
** For FILE NAME type LIST
** Press Control-C
** Press 1 PRINT FORMS
** Press Control-C
The RETRIEVE SPEC screen appears.
** Press Control-C
This will retrieve everyone in our file.
** Press Control-C
The PRINT OPTIONS MENU appears on the screen.
** Press the TAB key from one item to the next. Type the following:
PREDEFINED PRINT SPEC:
PRINT ITEM NAMES (Y/N): N
ADD LINEFEED CHARACTERS (Y/N): N
LINES PER PAGE: 6
NUMBER OF COPIES: 1
PAUSE BETWEEN PAGES (Y/N): N
PRINTER CONTROL CODES:
** Press Control-C
The PRINT SPEC screen appears.
** Type the plus symbol + for the First Name field.
** Type a capital X for Last Name field.
** Type a capital X for Address field.
** Type a plus symbol + for City field.
** Type a plus symbol + for State field.
** Type a capital XS for Zip Code field.
The capital S in the zip code field will SORT the same zip codes into groups as required by the post office.

Be sure the printer is turned on and the paper or mailing labels are inserted into the printer correctly.

** Press Control-C
The mailing labels will begin printing for Trotter City followed by Garden because you sorted by zip code.

After the last mailing label is printed, the message on the screen will display "FORMS PRINTED: 10"

** Press Control-C to return to the Main Menu.

In completing the following activity, you will be learning the following processes of your data base program:

Setting up a data base
Entering data
Saving data
Viewing, Editing, Adding, and Deleting data
Printing reports without sorting
Setting up reports
Printing reports with sorting
Calculating
Using derived columns

You are the personnel manager for a large department store. Your responsibility is to create and maintain an employee payroll data base file.

The following information is needed in planning your membership file:

Last Name
First Name
Address
City
State
Zip
Phone Number
Social Security Number
Department
Date Hired
Hourly Rate of Pay
Weekly Hours Worked
Annual Salary

The membership list includes the following information:

Charlie Hustle	U. R. Stuck
123 Run Avenue	Rural Route 3, P. O. Box 284
Trotter City, IA 50473	Trotter City, IA 50473
724-669-8103	724-669-6426
983-48-1133	465-48-9321
Retail Sales	Office
04/06/67	03/06/56
$10.85	$9.50
45	40
$25,389	$19,760

Sam Dunk
688 Court Road
Garden, IA 52375
322-294-9100
884-38-9721
Retail Sales
10/01/78
$7.50
40
$15,600

Jane Doe
1548 South Elm
Garden, IA 52375
322-294-8666
561-99-9999
Retail Sales
09/11/86
$5.50
40
$11,440

Candy Bahr
4839 Main Street
Trotter City, IA 50473
724-669-2389
974-48-0134
Retail Sales
06/15/82
$6.25
40
$13,000

Mark Wagoner
2524 Harbinger Lane
Garden, IA 52375
322-294-3479
767-87-1234
Office
08/29/81
$8.00
40
$16,640

Sue Bee
4933 Honey Lane
Trotter City, IA 50473
724-669-9899
883-65-2134
Office
07/06/83
$5.75
40
$11,960

Bryce D. Barrymore
78 English Court
Garden, IA 52375
322-294-4209
521-66-2700
Retail Sales
01/13/80
$7.50
40
$15,600

I. M. Faast
8815 North Road
Garden, IA 52375
322-294-1120
986-25-7632
Retail Sales
09/30/78
$9.50
40
$19,760

Ellissa Stevens
4744 F Avenue NE
Trotter City, IA 50473
724-669-0175
543-21-0987
Retail Sales
03/24/84
$4.25
40
$8,840

ACTIVITIES:

I. Planning and setting up a data base

II. Entering data from list

III. Saving data

IV. View, edit, add, and delete data

A. View a record - Search for date of hiring for U. R. Stuck.

B. Edit a record - Sam Dunk's social security number was entered in error. The correct number should be 332-29-9000. Make the correction.

C. Add a record - Julie Richey has joined the staff. Add her information to the file. Julie Richey, 66 Home Acres Tr. Ct., Garden, IA 52375, 875-889-2356, 985-34-7812, Retail Sales, 06/20/86, $5.50, 40, $11,440.

D. Delete a record - U. R. Stuck retired from the company after 30 years. Delete the records from the file.

V. Printing useful reports (suggestions, depending on software)

A. Setting up the report format
B. Printing reports/labels

1. Employee list with all information in file.
2. Department lists giving department, first name, and last name for all members in each department.
3. Salary list giving last name, first name, and annual salary with the salary column totaled using calculating available in some software programs.
4. Weekly payroll list giving first name, last name, hourly rate, and weekly hours worked of all employees. Using calculating and derived columns available in some software packages, calculate the weekly salary in a derived column and print a total of weekly employee salaries.

INFORMATION FOR DEVELOPING ADDITIONAL ACTIVITIES

The following information is provided to help students develop additional activities with the software program.

ACTIVITY: Expense Account

FIELDS		REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. Account Title	A.	Expense Accounts	1,7	7
2. Date	B.	Monthly Exp. Accts.	1,3,7	7
3. Amount	C	Monthly "Paid to"	4,3	4
4. Paid To	D.	Tax Deductible Accts.	1,3,6,7	6
5. Check No.				
6. Tax Deductible				
7. Account No.				

ACTIVITY: Salesperson's Report

FIELDS		REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. Territory	A.	Monday Contact List	1,2,5,9	9
2. Company Name	B.	Active Clients	1,2,4,6	6
3. Address	C.	Visits During Month	1,2,5,7	7
4. City, State, Zip	D.	Sales	2,6,8	8
5. Contact Person	E.	Active Client Mailing		
6. Active Client		Labels	1,2,3,4,6	6
7. Date of Last Contact				
8. Amount of Last Sale				
9. Contact Day				

ACTIVITY: Inventory Reports (Retail Clothing)

FIELDS		REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. Item/Brand Name	A.	Value of All Items	1,4,5	1
2. Size	B.	Value of Items for		
3. Color		men/women	1,4,5,6	6
4. Number on Hand	C.	Value of Items by		
5. Unit Cost		size and color		
6. Men's Wear		(multiple search)	1,2,3,4,5	Highest
7. Ladies' Wear				to
8. Min. Reorder				Lowest
9. Max. Order				

ACTIVITY: Accounts Payable Files

FIELDS		REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. Vendor Name	A.	Vendor List	1,2,3,4	1
2. Address	B.	Invoice Totals	7,9,1,8	1
3. City	C.	Due Dates	1,9,5,7 (need a calculated field 9+5)	1
4. State				
5. Terms				
6. Discount Rate				
7. Invoice No.				
8. Invoice Amount				
9. Invoice Date				

ACTIVITY: Sales Records

FIELDS		REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. Invoice Number	A.	Department Sales	3,4,5 (calculated totals)	3
2. Invoice Date				
3. Department	B.	Customer Sales	6,2,4,5 (calculated totals)	6
4. Quantity				
5. Unit Price	C.	Total Sales for Month	1,2,3,4,5	2
6. Customer Name	D.	Customer Lists for Mailing Labels	6,7,8,9	6
7. Address				
8. City				
9. State & Zip				

ACTIVITY: Service Records for Business Machines

FIELDS		REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. Item	A.	List of All Items	1,2,3,4,5,7,8	1
2. Serial Number	B.	Aging of Typewriters (search typewriters)	1,4	1*
3. Model				
4. Date Purchased	C.	List of Items with Last Service Dates	1,6	6
5. Purchase Price				
6. Date Last Serviced	D.	List of All Items with Total Purchase Price and Book Value	1,4,5,8	4
7. Depreciation Rate				
8. Book Value				

*Arrange by Date of Purchase

ACTIVITY: Account Receivables

FIELDS		REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. Customer Name	A.	Customer Balances	1,5	1
2. Invoice Date	B.	Customer Accounts	1,2,3,4 (calculate total)	1
3. Invoice No.				
4. Amt. of Invoice				
5. Balance	C.	Expected Payments	1,2,3,4,6 (derived column 2+6)	*
6. Terms				

*Arrange earliest to latest

ACTIVITY: Airline Reservation

FIELDS		REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. Date	A.	Passenger Payments	1,2,3,4,5,6,7 8,9,10,20	3
2. First Name				
3. Last Name	B.	Company Reservations	10,12,13,14 15,16	10
4. Middle Initial				
5. Address	C.	Reservation Seating	10,11,12,13,14 15,16,17,18	11
6. City				
7. State				
8. Zip	D.	Meal & Luggage Numbers	10,11,12,13,14 19	12
9. Telephone				
10. Airline Flight #				
11. Destination				
12. Departure Date				
13. Departure Time				
14. Departure Place				
15. Destination				
16. Arrival Time				
17. Seat Number				
18. Smoking				
19. Meal				
20. Payment Made By				

ACTIVITY: Court Summary

FIELDS		REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. Case Number	A.	District Cases	1,5,6,7,8 10	7
2. Plaintiff				
3. Defendant	B.	Judge's Decision	2,3,4,9	4
4. Judge	C.	City Cases	8,1,2,3,4	8
5. State	D.	Case Topics	2,3,4,10	10
6. County				
7. District				
8. City				
9. Decision For				
10. Case Topic				

ACTIVITY: Auto Insurance

FIELDS		REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. First Name	A.	Client List	1,2,3,4,5,6 7,9,10	2
2. Last Name				
3. Middle Initial	B.	Client Records	1,2,9,10,11 12,13,14	2
4. Address				
5. City	C.	Cars Insured	14,15,16,17 1,2	16
6. State				
7. Zip	D.	Premiums Due	1,2,14,15,24	24
8. Telephone				
9. Driver's License No.				
10. Social Security No.				
11. Miles to Work				
12. Driving Record				
13. Other Drivers				
14. Car Make				
15. Model				
16. Color				
17. VIN				
18. 4 door/2 door				
19. Liability Amounts				
20. Uninsured Motorist Amount				
21. Collision				
22. Deductible				
23. Other Options				
24. Annual Premium				

ACTIVITY: Medical Records

	FIELDS		REPORT TITLES	FIELDS IN REPORT	SORT FIELD
1.	First Name	A.	Patient List	1,2,3,4,5,6 7,8,9,10	2
2.	Last Name				
3.	Middle Initial	B.	Patient Description	1,2,11,12,13 14,15,16,18 19	2
4.	Address				
5.	City				
6.	State	C.	Insurance Information	1,2,3,4,5,6 7,8,9,10,16 21,22	10
7.	Zip				
8.	Telephone				
9.	Policy #	D.	Blood Donors	1,2,3,4,5,6 7,8,13	13
10.	Insurance Company				
11.	Eyes				
12.	Hair				
13.	Blood Type				
14.	Height				
15.	Weight				
16.	Occupation				
17.	Handicaps				
18.	Allergies				
19.	Last Tetnus				
20.	Spouse				
21.	Children				
22.	Doctor				

ACTIVITY: Real Estate

	FIELDS		REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1.	Address	A.	House Listing	1,2,3,15	1
2.	City	B.	Bedrooms	1,3,5	5
3.	Type of House	C.	Types of Houses	1,2,3,13,14 15	3
4.	Siding				
5.	# of Bedrooms				
6.	# of Baths	D.	Options	1,2,4,5,6,7 8,9,10,11,12	15
7.	Total Square Feet				
8.	Central Air				
9.	Heating				
10.	Lot Size				
11.	Garage Size				
12.	Taxes				
13.	Drive				
14.	Schools				
15.	Listing Price				

ACTIVITY: Appointment Schedule

FIELDS	REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. Day	A. Employer Schedule	1,2,3,4,6,8	2
2. Date	B. Secretary Schedule	1,2,3,4,6,8	2
3. Time	C. Follow-Up Schedule	4,6,7,11,12	11
4. Client	D. Meeting Rooms	8,2,3,4	8
5. Items Needed			
6. Meeting With			
7. Reason			
8. Meeting Room			
9. Arrival Time			
10. Departure Time			
11. Follow-up Date			
12. Follow-up Activity			

ACTIVITY: Shorthand

FIELDS	REPORT TITLE	FIELDS IN REPORT	SORT FIELD
1. First Name	A. Student Speed	1,2,4,5,6,7	2
2. Last Name	B. Student Accuracy	2,6,8,9,10	2
3. Student ID #	C. Student Transcription	1,2,11,14	14
4. Class	D. Class Summary by	7,8,9,10,11	7
5. Date	Speed	12,13	
6. Official Take #			
7. Speed			
8. Accuracy			
9. % of Accuracy			
10. # of Errors			
11. Transcription			
12. Abbreviated Words			
13. Phrases			
14. Typing Speed			

APPENDIX

TERMINOLOGY

field/category - one unit of data within a record

file - a group of records with common fields of data

recall - loading a file from memory for viewing, editing, or printing

record - a collection of fields

store/save - placing information on a disk

searching/finding - looking through the file for specific information

sorting/arranging - grouping data within a file into a specified order such as alphabetical or numerical

viewing - looking at a record on the screen

File: Membership List Page 1
Report: *MEMBERS*

First Name	Last Name	Address	City	State	Zip	Telephone
Charlie	Hustle	123 Run Aven	Trotter City	IA	50473	724-669-8103
Sam	Dunk	688 Court Ro	Garden	IA	52375	322-294-9100
Candy	Bahr	4839 Main St	Trotter City	IA	50473	724-669-2389
Sue	Bee	4933 Honey L	Trotter City	IA	50473	724-669-9899
U. R.	Stuck	Rural Route	Trotter City	IA	50473	724-669-6426
Jane	Doe	1548 South E	Garden	IA	52375	322-294-8666
Mark	Wagoner	2524 Harbing	Garden	IA	52375	322-294-3479
Bryce D.	Barrymore	78 English C	Garden	IA	52375	322-294-4209
I. M.	Faast	8815 North R	Garden	IA	52375	322-294-1120
Ellissa	Stevens	4744 F Avenu	Trotter City	IA	50473	724-669-0175

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File: Membership List Page 1
Report: MEMBERS

First Name	Last Name	Address	City	State	Zip	Telephone
Candy	Bahr	4839 Main St	Trotter City	IA	50473	724-669-2389
Bryce D.	Barrymore	78 English C	Garden	IA	52375	322-294-4209
Sue	Bee	4933 Honey L	Trotter City	IA	50473	724-669-9899
Jane	Doe	1548 South E	Garden	IA	52375	322-294-8666
Sam	Dunk	688 Court Ro	Garden	IA	52375	322-294-9100
I. M.	Faast	8815 North R	Garden	IA	52375	322-294-1120
Charlie	Hustle	123 Run Aven	Trotter City	IA	50473	724-669-8103
Ellissa	Stevens	4744 F Avenu	Trotter City	IA	50473	724-669-0175
U. R.	Stuck	Rural Route	Trotter City	IA	50473	724-669-6426
Mark	Wagoner	2524 Harbing	Garden	IA	52375	322-294-3479

As Entered/Alphabetized

Sample Printed Reports 1

Name List/Telephone List/Address List by City

File: Membership List Page 1
Report: NAME LIST

First Name	Last Name
Candy	Bahr
Bryce D.	Barrymore
Sue	Bee
Jane	Doe
Sam	Dunk
I. M.	Faast
Charlie	Hustle
Ellissa	Stevens
U. R.	Stuck
Mark	Wagoner

File: Membership List Page 1
Report: TELEPHONE LIST

First Name	Last Name	Telephone
Candy	Bahr	724-669-2389
Bryce D.	Barrymore	322-294-4209
Sue	Bee	724-669-9899
Jane	Doe	322-294-8666
Sam	Dunk	322-294-9100
I. M.	Faast	322-294-1120
Charlie	Hustle	724-669-8103
Ellissa	Stevens	724-669-0175
U. R.	Stuck	724-669-6426
Mark	Wagoner	322-294-3479

File: Membership List Page 1
Report: ADDRESS LIST
Selection: City equals TROTTER CITY

First Name	Last Name	Address	Telephone
Candy	Bahr	4839 Main Street	724-669-2389
Sue	Bee	4933 Honey Lane	724-669-9899
Charlie	Hustle	123 Run Avenue	724-669-8103
Ellissa	Stevens	4744 F Avenue NE	724-669-0175
U. R.	Stuck	Rural Route 3, P. O. Box 284	724-669-6426

Mailing Labels

Candy Bahr
4839 Main Street
Trotter City IA 50473

Sue Bee
4933 Honey Lane
Trotter City IA 50473

Charlie Hustle
123 Run Avenue
Trotter City IA 50473

Ellissa Stevens
4744 F Avenue NE
Trotter City IA 50473

U. R. Stuck
Rural Route 3, P. O. Box 284
Trotter City IA 50473

Bryce D. Barrymore
78 English Court
Garden IA 52375

Jane Doe
1548 South Elm
Garden IA 52375

Sam Dunk
688 Court Road
Garden IA 52375

I. M. Faast
8815 North Road
Garden IA 52375

Mark Wagoner
2524 Harbinger Lane
Garden IA 52375

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END

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